



## Acid Rain Program

### Quarterly Report Review Process for Determining Final Annual Data

The Acid Rain Program regulations (40 CFR Part 75) require affected sources to submit quarterly data reports for their affected units to the EPA no later than 30 days following the end of each calendar quarter. Each report must be signed and certified by the source's Designated Representative (DR) or Alternate Designated Representative (ADR) for accuracy and completeness. This document describes the Quarterly Report Review Process the EPA uses to evaluate quarterly reports and determine the accepted emissions value for each affected source. These final data are used for allowance reconciliation and compliance determination and are made available to the public.

The "EPA Accepted" values that are used for the purpose of annual reconciliation are based on the calculated daily or hourly values submitted in each quarterly report file. These values are represented by the "EPA Accepted" column of the cumulative data summary table contained in each ETS feedback report. This table is developed for each stack/unit/pipe ID identified in the quarterly report. An example of the cumulative data summary table is included at the end of this document.

All quarterly reports submitted to the EPA are entered into the Emissions Tracking System (ETS) which performs automated data processing. ETS is maintained on the EPA mainframe computer located in Research Triangle Park, NC. The reports are required to be electronically submitted directly to ETS using "ETS-FTP," an EPA-developed software program.

The EPA's Quarterly Report Review Process consists of the following steps:

1. **Data Review** - All quarterly reports are analyzed to detect deficiencies and identify reports that must be resubmitted to correct problems. The EPA also identifies reports that were not submitted by the appropriate reporting deadline.
2. **Data Resubmission** - Revised quarterly reports must be obtained from sources by a specified deadline to correct deficiencies found during the Data Review process.
3. **Data Dissemination** - All data are reviewed, and preliminary and final emissions data reports are prepared for public release and compliance determination.

These three primary activities are described below in further detail:

### 1. Data Review

The EPA's Data Review consists of three steps: Automated Quarterly Report Rejection Criteria Review, Automated Quarterly Report Critical Error Rejection Review and Additional Quarterly Report Audits. These steps are described below:

- A) Automated Quarterly Report Rejection Criteria Review - All reports submitted to ETS on the EPA mainframe are first tested against automated rejection criteria. These criteria determine whether a quarterly report is basically complete and internally consistent according to Part 75 reporting requirements, including the ordered record types (RT) described in the Electronic Data Reporting (EDR) format, version 2.1. The EPA will reject a report if it fails any of the rejection criteria, and will inform

the source that the report must be corrected and resubmitted (for tracking purposes, ETS assigns a Status Code of '6' to a rejected report).

Sources receive feedback containing the results from this automated review. After reviewing the feedback, the source may revise the report and resubmit it prior to the submission deadline. If a report is rejected (Status Code 6), the feedback states that the source must correct and resubmit the report to the EPA no later than 30 days from the date of the feedback (see Section 2. Data Resubmission). During the specified quarterly report submission period (typically 30 days after a calendar quarter), the source has the option of submitting a file numerous times before the submission deadline.

The following are some of the rejection criteria that are applied during this automated review:

- 1) Does the report contain a facility identification record (RT 100)?
- 2) Does the report contain only one facility identification record (RT 100)?
- 3) Is the facility identification record (RT 100) the first record in the report?
- 4) Is the plant code (ORISPL) in RT 100 contained in the EPA's database of valid ORISPL codes?
- 5) Are the calendar year and/or quarter in RT 100 correct?
- 6) Are all Unit IDs and/or Stack IDs in the report found in the EPA's database of valid IDs for the plant code (ORISPL)?
- 7) Does the report contain basic monitoring plan data (RT 503 or RT 504) for each unit and stack present in the report?
- 8) Is there a Unit Definition Record (RT 504) for each unit ID contained in the report, and is there a Stack/Pipe Header Definition Record (RT 503) for each Stack or Pipe ID contained in the report except for reports containing only nonoperational units or stacks?
- 9) Is there at least one of the following for each operating unit (defined in RT 504) or stack/pipe (defined in RT 503) in the report: emissions data (RT 2xx or RT 3xx), QA/QC test data and results (RT 6xx), or operating data (RT 300)?
- 10) Is there a summary emissions data record (RT 301) for each unit, stack, or pipe reported in the report?
- 11) Does the Unit/Stack/Pipe ID specified in the ETS mainframe filename appear in the report?
- 12) Does the report contain only ASCII or EBCDIC-compliant characters (except for RTs 520,550, 555, and 900/901/910)?
- 13) Do all records in the report begin with a valid record type code, as defined in EDR v2.1?

A report that passes the automated rejection criteria will next undergo an automated critical error review, described below.

- B) Automated Quarterly Report Critical Error Rejection Review - Each report that passes the automated rejection criteria then undergoes a second level of automated ETS software checks to detect critical errors. A report that fails any one of these checks is assigned a "Critical Error Rejection" status (Status Code 5) within ETS. In such a case the EPA will inform the source that the report contains critical errors that must be corrected, and the file must be resubmitted (as defined in Section 2. Data Resubmission).

Sources receive the results from this automated critical error rejection review in their ETS feedback. If a report receives a critical error rejection (Status Code 5), the feedback states that the source must correct and resubmit the report to the EPA no later than 30 days from the date of the feedback (see Section 2. Data Resubmission).

The following are some of the critical error rejection criteria that are applied during this automated review:

- 1) Does the sum of the hourly records for SO<sub>2</sub> (RTs 310,313, and 314) multiplied by the operating time (RT 300) equal the total quarterly SO<sub>2</sub> tons reported in RT 301?
- 2) Does the sum of the hourly records for Heat Input (RT 300) multiplied by the operating time (RT 300) equal the total quarterly Heat Input reported in RT 301?
- 3) Are the appropriate hourly emissions (RT 302/313 and/or 303/314) present for a unit using Appendix D?
- 4) Is the cumulative annual average NO<sub>x</sub> emission rate reported in RT 301 less than 3.00 lb/mmBtu?
- 5) Are the cumulative annual SO<sub>2</sub> tons emitted, reported in RT 301, less than 180,000 tons?
- 6) Is every hour of SO<sub>2</sub> mass emissions (RT 310,313, and/or 314) less than 85,000 tons?
- 7) Is every hour of average NO<sub>x</sub> emissions rate (RT 320,323,324, and/or 325) less than 5.00 lb/mmBtu?
- 8) Is the EPA Accepted Value equal to the Cumulative Annual Value for SO<sub>2</sub>,CO<sub>2</sub>,NO<sub>x</sub> and Heat Input?
- 9) Is the sum of the hourly NO<sub>x</sub> Mass emissions reported in RT 360 less than or equal to 50 tons?
- 10) Is the sum of the hourly SO<sub>2</sub> emissions reported in RT 360 less than or equal to 25 tons?
- 11) Do all hourly emissions data reported in the file fall within the current submission quarter?
- 12) Are the proper program indicators being reported for each unit in RT 505?
- 13) Is the fuel type reported in RT 585 appropriate for a Low Mass Emissions (LME) Unit ?
- 14) Is there a RT 585 for each pollutant (SO<sub>2</sub>,CO<sub>2</sub>, and NO<sub>x</sub> Rate) and heat input present in the file?
- 15) Does each reported Unit Information record (RT 504) have at least one associated Unit Classification by Fuel Type record (RT 587)?
- 16) Is there an SO<sub>2</sub> and CO<sub>2</sub> mass emissions record for each RT 300 with an operating time that's greater than 0.25?
- 17) Are the Bias Adjustment Factors for SO<sub>2</sub> (RT 200), Flow (RT 220), and NO<sub>x</sub> (RT 320) greater than or equal to 1.00?
- 18) Does the sum of the hourly records for CO<sub>2</sub> (RT 330) multiplied by the operating time (RT 300) equal the total quarterly CO<sub>2</sub> tons reported in RT 301?
- 19) Are SO<sub>2</sub> (RTs 310,313,314), CO<sub>2</sub> (RTs 330,331) and NO<sub>x</sub> (RTs 320,323,324) present in the file?
- 20) Is every hour of Heat Input Rate (RT 300) less than 99,999 mmBtu/hour?
- 21) Does the quarterly average NO<sub>x</sub> rate calculated from the hourly records for NO<sub>x</sub> (RT 320,323,324 and/or 325) equal the reported quarterly average NO<sub>x</sub> rate reported in RT 301?
- 22) Is there a NO<sub>x</sub> rate emissions record for each RT 300 with an operating time that's greater than 0.25?
- 23) Is RT 320 and 323 and/or 324 present in the same file?
- 24) Is every hour of CO<sub>2</sub> mass emissions (RT 330) less than 9999 tons?
- 25) Do the concentration (2XX) and mass emission (3XX) record types contain only positive emission values?
- 26) Are there 50 or more recalculation errors on reported hourly emissions for SO<sub>2</sub>,CO<sub>2</sub>,NO<sub>x</sub> rate and heat input?
- 27) Is the EDR version in RT 100 missing or invalid?
- 28) Is an hourly SO<sub>2</sub> and CO<sub>2</sub> mass emissions record reported but the unit operating time is zero?
- 29) Is there duplicate record for a clock hour?
- 30) Does the EDR contain at least one RT 102?
- 31) Does the EDR contain more than one RT 102?
- 32) Does RT 520 indicate NO<sub>x</sub> rate as the parameter monitored?

- 33) Is the F-Factor blank or missing for hour using CEMS for heat input rate?
- 34) Are quarterly operating hours reported in RT 301?
- 35) Does RT 585 for SO<sub>2</sub> have the proper methodology code?
- 36) Is the DAHS component properly reported for every monitoring system?
- 37) Is RT 504 incorrectly reported for a stack or pipe ID?
- 38) Is RT 503 incorrectly reported for a unit ID?
- 39) Is multiple RT 504 reported for a unit ID?

After the critical error rejection review, the report then undergoes a final level of ETS software checks to detect other types of errors and inconsistencies (“informational errors”). Results from this final analysis are also included in the ETS feedback provided to the DR. ETS generates messages to describe the informational errors (if any) detected in the report and assigns a “Quarterly Report Contains Informational Errors” status (Status Code 9). The DR may then revise the report to correct informational errors and resubmit it to the EPA prior to the submission deadline. The DR must also ensure that such errors are corrected so they do not occur in subsequent quarterly reports.

As part of ongoing Quality Assurance (QA) activities, the EPA expects to incorporate certain informational errors into the set of critical error rejection criteria (Status Code 5) or incorporate some informational errors into the set of rejection criteria (Status Code 6). In other words, errors which are currently identified by ETS for the source to correct in future submissions may become errors which the source must correct before the quarterly report containing the specified error(s) can be accepted by the EPA.

- C) Additional Quarterly Report Audits - In addition to the automated data review and feedback described above, the EPA may subject quarterly reports to an electronic audit as a part of ongoing QA activities where additional rejection criteria are applied. If a report fails any of these additional criteria, the EPA will notify the DR and require resubmission of that report, and/or initiate a field audit. Note that a resubmission will be required if the audit results indicate that there is a “significant” impact on the reported emissions (as defined in Section 2. Data Resubmission).

Examples of criteria that the EPA may apply during a quarterly report audit are:

- 1) Are the hourly SO<sub>2</sub> mass emissions calculated correctly from the appropriate data elements?
- 2) Are the hourly NO<sub>x</sub> emission rates calculated correctly from the appropriate data elements?
- 3) Are the hourly heat input rates calculated correctly from the appropriate data elements?
- 4) Are the hourly CO<sub>2</sub> mass emissions calculated correctly from the appropriate data elements?
- 5) Is the correct bias adjustment factor applied for every hour, where appropriate?
- 6) Have the required quarterly linearity tests been conducted, passed, and reported within the required amount of time?
- 7) Have the required RATA tests been conducted, passed, and reported within the required amount of time?
- 8) Have the required daily monitor calibration tests and flow monitor interference check tests been conducted and reported?
- 9) Has the required quarterly flow monitor leak check test been conducted and reported?
- 10) Are all monitors used to report emissions data certified?
- 11) If the quarterly report indicates that a recertification event occurred, were the test results submitted to the EPA?

Additionally, the quarterly reports are audited using the Monitoring Data Checking (MDC) Software. EPA

encourages sources to use MDC Software to check the quality of their electronic monitoring plans, certification, and quality assurance testing data before submitting reports to EPA. Errors identified by this software may require a resubmittal of the report to the ETS. For more information on MDC software and other monitoring information, please check the Clean Air Markets Division website at:

<http://www.epa.gov/airmarkets/monitoring/index.html>

Finally, the EPA may conduct periodic, independent field audits to assure compliance with Part 75 Continuous Emission Monitoring (CEM) requirements. These field audits may include activities such as a review of on-site records, CEMS inspections, and QA test observations. The EPA expects that when errors or deficiencies are discovered through the field audit program, appropriate corrective action will be taken independently of the quarterly review process described here.

After reviewing the results from these additional audits, the EPA may add one or more new criteria to the automated rejection criteria (Status Code 6) or critical error rejection criteria (Status Code 5) applied by the ETS software. These new criteria will then be implemented in subsequent calendar quarters.

## **2. Data Resubmission**

As described above in the Data Review section, a source may need to resubmit a quarterly report to correct specified problems. A quarterly report resubmitted to the EPA replaces the previous submission in ETS and at a minimum will also undergo the automated Data Review processes described above. As a result, each resubmitted report must be complete; it must contain all the required data records for emissions, Quality Assurance/Quality Control, and monitoring plan data. Additionally, a resubmitted report must include the Designated Representative Signature and Certification Statements, included in RTs 900/901. If the resubmitted report passes all rejection criteria and critical error rejection criteria and the problem(s) identified in the prior submission was also corrected, no further action is required by the DR.

### Resubmission Procedures and Deadlines

During the 30-day quarterly report submission period following the end of each calendar quarter, a source may revise and resubmit the reports for that quarter, as necessary, before the quarterly report submission deadline. As a result, most of the quarterly reports will pass all rejection and critical error rejection criteria before the submission deadline. The remaining reports typically contain problems that cause the EPA to reject them, or they contain other significant inaccuracies identified by the EPA and/or source. These reports will need to be corrected and resubmitted to the EPA. Resubmission deadlines, including final quarterly report resubmission deadlines, are discussed below.

After the quarterly reporting deadline, a source must first contact the EPA before resubmitting a quarterly report so the EPA can determine whether the resubmission is permissible and prepare ETS to receive the resubmission. If the EPA has rejected the report, the source DR must correct the report and resubmit it by the deadline specified in the feedback, or resubmit it according to supplemental EPA guidance (for example, if the report was rejected during an audit). If a report contains other significant errors identified by the EPA and/or source (as described below), the report must be resubmitted according to EPA guidance.

If the EPA and/or the source discover an error which impacts the emissions results, the EPA will determine whether the impact is significant and warrants correction of the emissions data through the resubmission of

any or all of the quarterly reports for that calendar year. If a source discovers such an error, the source may voluntarily inform the EPA and request that the EPA allow resubmission of the affected report(s). If the EPA approves the request, the source will be instructed to resubmit the quarterly report. As part of this process, the EPA will first consider whether the emissions data will be used for compliance determinations. For example, in the case of a unit where the SO<sub>2</sub> emissions data are used to calculate allowance deductions for compliance with the Acid Rain Program emission limitation requirements, the EPA will require the source to correct the data if the error in the reported SO<sub>2</sub> value was greater than or equal to one ton. Some of the criteria used to determine whether an Acid Rain quarterly report should be resubmitted to the EPA are as follows:

- 1) Are the reported SO<sub>2</sub> mass emissions correct within 1.0 ton and 3%?
- 2) Is the reported NO<sub>x</sub> emission rate correct within 0.01 lb/mmBtu and 2%?
- 3) Is the reported heat input correct within 1000 mmBtu and 1%?
- 4) Are the reported CO<sub>2</sub> mass emissions correct within 100 tons and 2%?
- 5) Are required quarterly linearity test data and results (RT 601 and 602) reported and are they complete?
- 6) Are required RATA test data and results (RT 610 and 611) reported and are they complete?
- 7) Are the required daily monitor calibration tests and flow monitor interference check tests reported and are they complete?
- 8) Is the required quarterly flow monitor leak check test reported and is it complete?
- 9) If a report was submitted via direct electronic submission and the Electronic DR Signature and Certification Statements (RT 900 and 901) were submitted instead of a hard copy letter containing the DR certification and signature, are these record types correct, complete, and present?
- 10) Are the reported emissions or heat input data consistent (for example, the sum of the reported hourly SO<sub>2</sub> emissions for the quarter multiplied by the operating time does equal the quarterly total SO<sub>2</sub> emissions value reported in RT 301)?
- 11) Is the quarterly report free of errors that EPA may determine will have a significant impact on the data quality?
- 12) Are there any critical errors in the report as identified by the MDC software?

As part of ongoing QA activities, the EPA may modify these criteria.

#### Final Quarterly Report Resubmission Deadlines:

To finalize the year-to-date emissions data as early as possible in anticipation of annual allowance reconciliation and compliance determination, the EPA has established the following final quarterly report resubmission deadlines for specified calendar quarters:

- 1<sup>st</sup> quarter 2002 - Resubmission Deadline: Wednesday, July 31, 2002
- 2<sup>nd</sup> quarter 2002 - Resubmission Deadline: Thursday, October 31, 2002
- 3<sup>rd</sup> quarter 2002 - Resubmission Deadline: Tuesday, December 31, 2002
- 4<sup>th</sup> quarter 2002 - Resubmission Deadline: Monday, March 31, 2003

While the EPA will make every effort to assure that the current year's data are accurate, the EPA will not unilaterally change or correct submitted data without providing notice to the affected source. To the extent

practicable, data reconciliation efforts, including resubmissions, will be made in cooperation with the source. Nonetheless, the responsibility to ensure the accuracy of the data submissions remains with the source.

### 3. Data Dissemination

All quarterly reports received by the EPA are maintained in a central database within ETS. This database is updated when quarterly reports are resubmitted. The EPA regularly extracts data from ETS for public distribution and for annual allowance reconciliation and compliance purposes. Reports containing the preliminary quarterly and year-to-date summary emissions and related data are released to the public on a quarterly basis, approximately 30 days after the end of each calendar quarter. Final annual summary emissions data are available approximately nine months after the end of the calendar year.

#### EPA Accepted Data

Here is an example of the "EPA Accepted" values:

##### 4/2000 CUMULATIVE DATA SUMMARY TABLE

ORISPL:          Plant Name:

Unit/Stack/Pipe ID:

	Hourly or Daily	Reporting Period or Quarterly	Cumulative Annual or Cumulative Ozone Season	<b>EPA Accepted</b>
SO2	5956.3	5956.3	5956.3	<b>5956.3</b>
CO2	2055774.3	2055774.3	2055774.3	<b>2055774.3</b>
Heat Input	20074913.0	20074913.0	20074913.0	<b>20074913.0</b>
Ozone Heat Input				
NOx Rate	0.24		0.24	<b>0.24</b>
NOx Mass				
Ozone NOx Mass				

Raw emissions data and preliminary quarterly summary reports are available on the emissions page of the Clean Air Markets Division's Web site at: <http://www.epa.gov/airmarkets/emissions/index.html#prelim>.

